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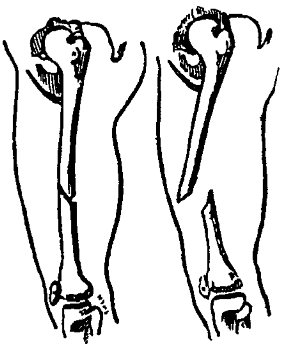
CHAPTER IV

FRACTURES

BONES are hard, but brittle, and break like glass, or porcelain, by outward force (blow, fall, jump, etc.). When a bone is broken, it is called a *fracture*. Fractures are caused either by (1) external violence, or (2) by muscular action. *The external violence* is said to be *direct* when the break is at the spot where the violence is applied *e.g.*, a cart wheel passing over a leg, or *indirect* in which case the fracture occurs at a distance from the seat of injury, *e.g.*, a fall on the elbow sometimes causes



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LEPROSY RELIEF AND PREVENTION

GREAT advance has been made during the last decade in the treatment of leprosy and considerable attention is also being paid to the preventive aspect. The age-long treatment with hydnocarpus oil and its derivatives has slowly given place to sulphones and other more potent drugs.

"The irrational fear in the minds of the people which make them ostracise the patient and his family and refuse to employ him in any job," is still there, said Mr. A. B. SHETTY the Health Minister of Madras, the other day while inaugurating the training course at 'Windsor', Edward Elliot's Road, Mylapore under a scheme which the Madras Government has sanctioned for the training of lay workers to serve in an honorary capacity for leprosy relief and prevention. He pleaded for a more sympathetic and considerate treatment of these unfortunates by the public and said that a great deal of propaganda was necessary to remove the needless and vague fear in the minds of men against leprosy, due to ignorance of facts. The psychology of both the patient and the public should undergo a radical change. Leprosy is a widespread disease in India and is indeed not only a medical problem but has social and economic aspects which need greater attention than at present.

The report on the census of 1951 has not yet been published and so the total number of persons afflicted with this malady is not available. It is however, clear that it is widely prevalent in the country and is endemic in many areas. As far as the Madras State is concerned, the hospital statistics give some idea of its prevalence though many of the sick, are crowded out of hospitals and some others prefer to live in concealment to avoid

social ostracism. In 1950, the latest year for which we have now got official statistics there were 1,01,359 (over a lakh) of patients being treated for leprosy in State hospitals and a large number was treated in private and mission hospitals. North Arcot had 27,339, Tanjore 16,767 and South Arcot 9262 sufferers from leprosy under treatment in hospitals. This does not necessarily mean that leprosy is more prevalent in these than in the other 23 districts of the State. Rather would it point to the sufferers in these districts being more knowledgeable as they have come to realise that leprosy is now very much amenable to modern specialised treatment and that they could secure this treatment by getting hospitalized. Further, only in very few districts of the State do facilities exist for the treatment and after-care of leprosy patients. The short-term plan of a previous Health Minister of Madras for doubling the number of beds available in State Hospitals for sufferers from leprosy, must have fizzled out, as we find the *status quo ante* is still being maintained.

The really noteworthy advance that *has* been made in recent years is the system experimentally introduced some years ago by that enthusiastic expert in leprosy-work, Dr. R. G. COCHRANE, Director of Leprosy Research in India, and former Superintendent of the Tirumani Leprosarium, in a village in Chingleput District and which was subsequently copied in a village in Tiruchirappalli District, and we believe, also in two or three villages recently in the South Arcot District. This scheme consists of the isolation of infective cases of leprosy in rural areas by segregating them at nights in huts constructed outside residential areas so as to prevent contact with healthy people particularly the children who are more susceptible than adults. These huts are under the control of a treatment centre. To the Kasthuriba Gandhi Leprosy Home, in Mazhavanthangal (South Arcot District) are attached clinics within a radius of 15 miles and the villagers have been contributing cheerfully for the upkeep of this home,—thanks to the untiring zeal and effort of the Home-workers. Those in the infective stage are treated in the clinics and they sleep in the separate huts provided for them.

This system of night segregation may be difficult of practical application in urban areas but social welfare workers such as would be trained at the "Windsor Centre" in Mylapore could by persuasion and advice induce the patients to observe necessary precautions to live apart from others, particularly the children, and sleep in a separate room. Such voluntary isolation will greatly assist in combating leprosy than any system of compulsion that may be enforced by legal enactments.

It must be remembered that not all cases of leprosy are infective. As Mr. SHETTY said the other day, only about 20 per cent are capable of infecting others. Leprosy is not a hereditary disease either. These two facts must be brought home to all people and they should be weaned by adequate propaganda from the irrational fear that clouds their sense of fair play.

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Rabies—HYDROPHOBIA

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Introductory.–Hydrophobia is an acute infective disease of dogs, cats, jackals, wolves and some other animals, communicable to man by the bites of such infected animals. The disease can also be communicated by the licking of an abraded surface and is communicable also from man to man by bites.

During the year 1950–'51, 22,322 patients were treated at the Pasteur Institute of South India, Coonoor, and the subsidiary treatment centres in the Madras State; and 1793 animals, of which 999 were dogs, were given prophylactic treatment against rabies.

This disease has been recorded in the medical literature of America so long ago as 1797. An obituary notice in the *Connecticut Courant*, published at Hartford under date 23rd April 1797, furnishes very interesting reading:

"Died at Southington on Sunday 15th instant Levi Woodruff aged 43. The progress and origin of his disorder will be read with interest. He felt greatly indisposed on Thursday; on Friday evening he consulted a physician. From a slight degree of hydrophobia, the physician was alarmed with an apprehension of canine madness; but having never heard (though a near neighbour)of the patient having exposed to be bitten, he suggested nothing at that time, of his fears. He saw the patient again on Saturday morning, and observing an increase of the same symptoms, suggested the idea to the family. It was then recollected by them, that for a length of time the patient had trained a small dog to lick an ulcerated sore within his ear for the benefit towards its cure; that four weeks previous to that time the dog was put to licking the sore; that the operation was more than commonly painful and that a small breach was made in the skin of the ear by the dog's tongue; that the next day the dog was affected with symptoms of madness and on the day following, the dog was killed. No apprehensions of mischief were entertained at that time, nor had it been thought of after. The physician was soon convinced that the disorder must have proceeded from the virus infused into the sore by the a dog ......The whole of Saturday he was constantly craving for water; but was thrown into the most violent agitations upon the sight of water".

A quack remedy

On the 2nd of February 1806, the State of New York passed "An Act for granting a compensation to one John M. Crous for discovering and publishing a cure which he claimed to have used with success for over 20 years for the cure of canine madness". The sum of 1,000 dollars granted to Crous was a considerable one in 1806. The New York Legislature voted this sum, due to a laudable desire to spare and save the citizens from a dreadful disease; the prescription of Crous called for a mixture made from the powdered jaw-bone of a dog, the ground-up false tongue of a new-foaled colt and the green crust scraped off from the surface of an English copper penny of the reign of George I!! This clearly shows that the situation concerning

rabies was a tragic one in 1806. The disease was uncontrolled; mad dogs bit cats, sheep, cows and pigs and even children and adults. Many became rabid and died and quackery flourished!

An early publication on rabies

In 1812, Dr. James Thacher, wrote a book on Hydrophobia detailing several cases that occurred in New England:—Cases of children, men and women whose pets had turned on them and bitten them, of stray cats that lay in ditches and darted out, clawed and bit farm children. Some who were bitten escaped the disease, but they suffered mental agony at the thought of having possibly been infected. They had to wait for months or even a year sometimes to be sure that they were not affected. These men of one hundred and fifty years ago knew about and dreaded rabies, almost as much as we do today, except for one thing, *viz.*, we know how to prevent it; they did not.

Dr. Thacher in his book published in 1812 has given as good as description of rabies in dogs, cats and even birds as any of the modern authors of to-day. He describes two kinds of disease in dogs; he knew that the causal agent, was carried in the saliva and transmitted to man and other animals by the bite of the rabid animal or that it entered through open wounds, cuts or scratches, as during the unfortunate experiment of Levi Woodruff, with the sore ear and his licking dog!!

The symptoms of rabies

The incubation period varies from 15 days to 7 or 8 months but it is usually about 40 days. There are usually three stages in the development of symptoms, *viz.*, (1) the stage of invasion, (2) the stage of excitement, and (3) the paralytic stage. And there are two kinds of rabies in dogs—the furious and the dumb variety. In neither, does the dog go suddenly mad. The first change is in its disposition; the dog usually becomes gloomy and taciturn, occasionally very affectionate; generally it seeks to hide away in corners, or under chairs. But even then it is uneasy, fidgety and obviously ill, alternately lying down and then jumping up—unable to rest. The dog may try to *lick* everything about it but as yet does not show any tendency to *bite* anything.

The restlessness increases and the dog looks and acts funny as if it is disturbed by fanciful thoughts; for it snaps at imaginary enemies, and growls in a low and hoarse voice.

The master's voice can rouse the dog from its lethargy even at this stage, and it will go to the master to be petted and lick the master's hand that pats it, infecting him with its saliva in so doing. The dog's bark at this stage has an altered tone, which trained people can recognize as that of a mad dog. It is a sort of harsh and brassy cough, like the crowing of a hen sitting over its eggs.

The furious variety

The barking is the first noticeable sign in the furious stage. The dog, if allowed to be at large, will run wild with its tail between its legs, head down,

eyes inflamed, saliva freely dripping from its jaws but no foaming at its mouth. It will blindly snap and bite at anything in its way, whether it is a cat, horse, child, man or even a tree. Finally after several hours of aimless wandering, sometimes over long distances, the dog gets weak and fatigued. It then slinks into a corner or a ditch, becomes slowly paralysed and dies. But in its final mad careering journey it has spread the virus of the disease to all it has bitten or even licked.

The dumb variety

The dog instead of dashing about from place to place, snapping and biting at things, stays quietly at home. It has a dull sad expression in its eyes; it loses its voice; its jaws become paralysed and its lower jaw hangs down. The general appearance of the dog is that of one which had a bone stuck in its throat. It cannot, usually bite but the danger comes from the master, his servants or children thrusting their fingers into the dog's mouth, with the object of removing the substance believed to be stuck in its throat. Any scratch upon the hand is the route through which the virus in the dog's saliva may enter the man's system.

Beware therefore, of the dog that seems to have a bone in its throat. The Veterinary doctor should be called in for help.

Hydrophobia—(Fear of water)

Contrary to popular belief mad dogs are *not* afraid of water; they drink eagerly till they are no longer able to swallow. Men affected with rabies, however, do show fear of water—hydrophobia: They are thirsty but each time they attempt to swallow, their throat closes with a painful spasm and the sight of water may thus *really* add to their suffering.

What to do when a dog is suspected

Dr. Thacher who wrote in 1812 on hydrophobia made some recommendations for the control of the disease. He said:—"Do not kill a dog suspected of rabies; chain it or lock it up tightly where it can reach no one or better still send it into the Veterinary hospital. Wait then, and see whether it dies. If it lives for a week, there is no danger of rabies, for a dog or any other animal never survives the disease. If the dog lives, weeks and months of anxiety and uncertainty to the patient are averted by the knowledge that there is no fear of rabies.

In Thacher's day, if the dog was killed, one never knew whether it had rabies or not; but now even if the dog is inadvertently killed, it is still possible to detect the disease from changes in the dog's brain. These changes are marked by tiny little bodies visible only under the microscope. This very important diagnostic measure was discovered in 1903, by the Italian physician and pathologist, Dr. Adelchi Negri, and the bodies were named after him. These bodies are present in all portions of the brain in all infected animals including man.

Preventive treatment and control

Cauterization of the wound infected by the dog's saliva

together with Pasteur treatment offers the maximum protection against the disease. The story of the development of the preventive measure brought into effect by Louis Pasteur, assisted by Charles Chamberland and Emile Roux (French bacteriologists of the 19th century) is one of the most thrilling chapters in medical history. Pasteur's reports on the progress of his work in this direction were made from time to time between 1881 and 1885. Pasteur showed, that contrary to popular belief, rabies has nothing to do with the weather, the sun, the dog-star or with shortage of water. It is an infectious disease which may occur at any time of the year. The virus inoculated into the system travels through the nerves to the brain. The slowness of its journey to the brain accounts for the variable and delayed appearance of the disease in man; weeks or months elapse in many cases before the disease develops. Pasteur in 1884, produced rabies experimentally in animals by putting the virus into the brain itself. The disease then appeared in a short time. He next turned to the idea of making a vaccine, a weakened (attenuated) or killed strain of the virus that would induce immunity to rabies. By passing the virus through a succession of animals repeatedly he was able to weaken the virus and still further by drying the nervous tissue containing it. By injecting the weakened virus repeatedly into dogs in increasing doses, and immunizing them, he proved that the dogs could resist heavy infections, inflicted by mad dogs.

Pasteur now felt justified in offering publicly his method of protecting all dogs against rabies. There were practical difficulties however, particularly the stray dogs and so the method was not utilised to any great extent.

Practical application

A Mrs. Meister of Alsace, brought her nine-year-old son Joseph to Pasteur's Laboratory seeking help, as the little boy had been horribly bitten in 14 places by a rabid dog. As Pasteur was only a chemist he had to call in consultation some leading French doctors, who in one voice counselled the administration of Pasteur's attenuated virus vaccine, for the boy was doomed, otherwise. And so on 6th July 1885, at 8 o'clock in the evening, sixty hours after the bite, the first injection was made. Each day, thereafter, until July 16 Joseph received injections of increasing strength. On 16th July Pasteur did his supreme test—a most daring one indeed!—he injected the purest and the strongest virus of rabies, one which would kill an unprotected person. But little Joseph was protected! The treatment for 10 days had worked more rapidly than the virus from the bite of the dog could travel up his nerves. Rabies had been prevented. Pasteur's next case was that of Jean Baptiste Jupille a shepherd boy, (whose statue adorns the front courtyard of the Pasteur Institute at Paris as a fitting monument to Pasteur's great discoveries) who was mauled by a rabid dog with which the boy came to grips. In the closing years of the 19th century, thousands of patients bitten by mad

dogs and wolves from Europe and even America journeyed to Paris for obtaining the benefit of this live-saving measure.

Till a few years ago, here too in India patients bitten by mad dogs, had to journey up to Kasauli (near Simla) or to Coonoor in Nilgiris for getting anti-rabic treatment. Now, Pasteur's anti-rabic treatment is given at all Head Quarters Hospitals in the districts of the Madras State.

Smallpox and Vaccination

TEN POINTS TO REMEMBER

Dr. D. N. DEBSARMA, (Nutritionist),
Dalowjan T E., Oating, Assam.

INDIA suffers from more or less severe and frequent epidemics of smallpox inspite of the preventive measures like vaccination taken to combat it. The failure of preventive measures in India is largely due to the impracticability of hospitalization and isolation of cases the tracing and effective surveillance of contacts, and often also the extreme virulence of the disease. But defects and omissions in vaccination may also be responsible for the prevalence of the disease. In this communication stress has been laid upon certain important points concerning vaccination which every one should bear in mind.

1. Age for vaccination.-Primary vaccination should be done during early infancy, say within three months after birth. Even new-born babies can safely be vaccinated. Primary vaccination is probably safest and least troublesome when done between the third and sixth months of life. The possibility of inducing hæmorrhagic disease by vaccinating during the first ten days of life, and post-vaccinal encephalitis at school age or later should however, be borne in mind as remote possibilities that may follow primary vaccination. These are however, very rare and need not frighten people into evading vaccination.

2. Season for vaccination.—The periods of heavy rainfall should be avoided. Post-vaccinal encephalitis may occasionally occur amongst children vaccinated later than in infancy and during the summer months. Also during summer, the vaccine-lymph may rapidly deteriorate in potency. Vaccination is usually carried out during the dry and cold seasons in order to ensure the required immunity against smallpox.

3. Mass immunization.—The community should be thoroughly immunized against smallpox so that no one in the community is left unprotected during an epidemic. Periodic re-vaccinations and routine infant vaccinations should also be done in good time so that nobody is left unprotected at any time.

4. Potency of vaccine-lymph.—It is necessary to use only lymph which is less than a week old from the day of despatch from the manufacturing centre. The containers of lymph should be kept in an ice-chest or refrigerator where possible, till required for actual use. The lymph may then be used even a week after its receipt. In refractory cases lymph from a different batch may be tried.

5. Site for vaccination and number of insertions.—Usually the outer side of the arms near the insertion of the deltoid muscle is selected for vaccination. The anterior surface of the forearm, and the calves of the legs are also sometimes used for the purpose. Vaccination on the legs may sometimes cause severe reactions—both local and general as these parts are more exposed to injury, infection, etc. Regarding the number of insertions opinions vary, different authors advocating different number of insertions from 1 to 4. The modern view is that vaccination should be done on at least two skin-areas in all cases of urgent and obligatory primary vaccination and also in urgent re-vaccination. Two insertions are made on each arm in many States for primary vaccinations, and two insertions on one arm only for re-vaccinations.

6. Pre-and post-vaccinal care.—The skin site selected for vaccination should be thoroughly cleansed with soap and water or with a volatile substance such as alcohol or with both but the skin must be completely dry before the lymph is applied. The vaccinating instruments (needles or lancets) must be sterilised and cooled. It is better to allow the excess lymph to dry of itself instead of wiping it away. The vaccinated areas should be kept clean and not exposed to dirt or dust.

7. Post-vaccinal reaction.—After vaccination secondary sepsis, urticarial rash, generalised vaccinia etc., are sometimes seen in susceptible individuals. These are however, not common.

8. Re-vaccination.— Re-vaccination is essential every five years after the successful primary vaccination in infancy. During epidemics however, all persons should immediately be vaccinated or revaccinated irrespective of the period elapsed after primary or revaccinations. Members of the Medical and the Health departments require revaccination every year as they run extra risk being constantly exposed to smallpox. Revaccination of contacts will be effective only when it is done on or before the 4th day after exposure to the infection.

9. Reading of the results.—The degree of protection conferred by vaccination in a community cannot be evaluated unless the results of vaccination are carefully examined and recorded. Usually local reaction of varying degrees, is present in all successful primary and re-vaccinations, cases showing no reaction whatsoever being deemed 'failures.' Even in the case of reaction of immunity a papule may appear on the first day of re-vaccination but it does not develop into a vesicle and rapidly fades away. Therefore, the non-reactors to vaccination should be repeatedly vaccinated with due

precautions concerning lymph, technique of the operation etc., as they cannot be regarded as immune to smallpox. The immediate reaction of immunity, the accelerated (vaccinoid reaction), and the primary (vaccinal) reaction are the three usual types of reaction. These are looked for by Health Officers during their inspections of the vaccinated cases.

10. The technique of vaccination should be perfect in every way. Under aseptic conditions the vaccine virus should be introduced into the skin scarified by a suitable needle or lancet without drawing blood and with the least amount of pain to the subject or trauma to the parts. This simple operation is performed by different methods *e.g.*, the incision method, multiple puncture method (acupuncture) and drill method. The multiple method with a rotary lancet is considered to be the best. Congenital debility, under-nutrition, skin diseases, infectious diseases gastro-intestinal irritation, etc. are contra-indications for vaccination in children.

Conclusion.–Parents should see that their children are protected from smallpox by vaccination and re-vaccination at the proper time, and adults should also get themselves re-vaccinated in time. The people should be made vaccination conscious by extensive propaganda throughout the country. Smallpox is still a big problem in India and it is the duty of every one to cooperate with the Public Health authorities and demand to be vaccinated and re-vaccinated. By so doing it would be possible to eradicate smallpox from our country. If this has been possible in the countries of Europe and America where at one time in the past it was highly epidemic, why should it not be possible in our country ?

Roots in the Soil—Child Health and Culture

I wish it were possible for every child to spend its first 10 years close to the soil. If I had had children of my own I would, at any inconvenience to myself, have moved into the country and not alone for considerations of their physical health, I would have had them brought up in the country so that further rest of their lives they should have had a mental background of the fields, trees and wide skies and the smell of the earth. Upon the basic culture, all that they might later acquire would, I know, have grown more readily and more richly than it grows in the town child. The town child has no roots. He has quick brains, sharp movements, keen understanding of men; but he is an unfinished product. To have no country background to your memories is equal to having no education Lover of towns as I am, I realize that I owe a debt to my early country life. Again and again in hours of disquiet, I have gone back in spirit to those country days of childhood and have always found something in the recollected smell of the earth and the picture of my old village to rest upon.—(Thomas Burke in Beauty of England: quoted in *Readers' Digest*, June 1952).

"Though a girl has known her mother for 20 years and her lover for 20 days, she will more readily believe what he whispers than what she shouts".—(From *Woman*—by B. A. Bauer).

TUBERCULOSIS OF LUNGS

Signs, Symptoms and Prevention

Dr. JOHN G. DAVID, Medical Superintendent,
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Mehmadabad, Kaira Dist., Gujarat.

If you want to get rid of tuberculosis, you must get it diagnosed and detected in its earliest stages. This alone will ensure a complete cure and will obviate prolonged and complicated treatments such as A.P., P.P., Thoracoplasty and other major operations. Therefore, all of us must be familiar with the early signs and symptoms that would help in spotting tuberculosis and getting proper medical help.

Certain abnormal feelings or sensations usually make a person think that he is ill. For example, vague pains and general weakness are both abnormal sensations; cough and vomiting are both abnormal occurrences and these we call symptoms. But there are also certain abnormal conditions which are discovered by a physician during his examination and these we call signs.

Symptoms.—1. A cough persisting for more than a month for which no other cause has been found, is suspicious and should be promptly investigated.

2. Hæmoptysis or spitting of blood for sometime, should ordinarily be regarded as due to lung tuberculosis, until the contrary is proved. Though it does not by itself cause death, it greatly alarms the patient and his relatives. They should be reassured.

3. Pain in the chest is due to some degree of pleurisy (inflammation of the membranous covering of the lung). Although a frank dry pleurisy may be due to other causes, it is often tuberculous in origin, particularly in the very young patients. But pleurisy with effusion (fluid) is almost always due to tuberculosis.

4. A significant but otherwise inexplicable loss of weight within a short period of time may be due to tuberculosis.

5. Loss of strength (weakness and fatigue) is an important early symptom. Lassitude, loss of energy and interest in one's surroundings are often associated with tuberculosis.

6. Night-sweats are usually present in tuberculosis but they occur in many other conditions too; therefore, they cannot by themselves be considered to be suggestive of tuberculosis.

7. A characteristic feature is the temperature range in tuberculosis of the lungs:—a daily evening rise followed by a fall early in the mornings.

8. Another common symptom usually noticed is the irregularity

in the menstrual periods in young girls who were previously menstruating regularly.

Signs.—The signs that are usually discovered during examination by the physician need not concern the layman who should however, remember five cardinal points before concluding that he himself, any relative or friend is suffering from tuberculosis of the lungs:—

1. The presence of the germs of tuberculosis in the sputum.

2. Localised infiltration at the upper extremities of one or both lungs with fine persistent abnormal sounds called 'rales' heard in the lungs.

3. Confirmation of the infiltration by X-ray photographs.

4. Hæmoptysis (spitting of blood) of atleast a teaspoonful of clear bright red blood.

5. Pleurisy with effusion. (Inflammation of the covering membrane of the lungs accompanied by accumulation of fluid).

These signs can be discovered only by a qualified doctor and not by the patient or by quacks who pose and practise as doctors. All the five points noted above may not be found in every patient at the same time. The finding of one or more of them would definitely suggest the disease and suitable treatment should be started immediately.

Precautions.—**A.** *Those to be observed by the patient*:—Tuberculosis is spread by the sputum of a person suffering from tuberculosis; therefore, every particle of sputum should be collected and destroyed. To this end the patient should:—

(1) cover his mouth with a handkerchief or toilet paper while coughing or sneezing and should wash the same after disinfection or burn it away,

(2) spit only in a sputum-cup provided with a lid, containing an antiseptic lotion, *e.g.*, carbolic acid or lysol 25% and the contents of the same should either be buried deep in the earth or burned and the cup itself well-boiled before re-use. The effective boiling of the cups is a most essential and important precaution, never to be neglected,

(3) have separate plates, cups and saucers for eating and drinking and these should be thoroughly well-washed and cleaned with carbolic soap or boiled for some time each day; under no circumstances should a patient use others' utensils,

(4) not allow any children under sixteen years of age or adults with weakened constitutions into his room. It is criminal to embrace or kiss his children when he is still ill; he will thereby mar their future lives also,

(5) carry a drinking vessel of his own, wherever he happens to go and should not consider it *infra dig* to do so; for it is very hygienic,

(6) should not attend parties or social functions, so long as his sputum is positive for tuberculosis germs; for he will be infecting innocent healthy people who will be attending those functions.

B. *Those to be observed by attendants (relatives included)*:—(1) Relatives or attendants who are already weak or sickly should not attend on the patient; nor seek frequent access to his room,

(2) they should not stand facing the patient, while he is coughing or sneezing; if the patient fails to cover his mouth they should instruct him to do so atonce and regularly thereafter,

(3) they should not on any account partake of food handled or left over, by the patient nor use the vessels used by the patient,

(4) if a child is born to a tuberculous mother, the relatives should remove the child atonce from her and feed it with cow's milk or other patent food and never allow the mother to suckle it. This will prevent the child from getting the disease. *Remember no child is born with tuberculosis but gets it only after his birth by contact with the mother and her milk,*

(5) they should wash their hands thoroughly with soap and water every time after attending on the patient and necessarily before they begin to eat or drink anything,

(6) they should take good food regularly and lead an out-door life as much as possible, even while tending the sick patient,

(7) lastly, if they had not been inoculated with the B.C.G. vaccine till then, they should promptly contact the B.C.G. team of vaccinators and get inoculated, without any dealy. The Union Government has appointed teams of workers in all States specially for this purpose. Therefore, do not lose this opportunity of getting yourself and your family examined and protected against tuberculosis by B.C.G. vaccination.

General.—If you find any of the symptoms mentioned above, go to a chest-specialist and get yourself thoroughly examined, if possible with an X-ray photo of your chest. And if you have the diseases, do not get scared or unduly alarmed but get into a sanatorium and take your treatment immediately. Do not be led astray by the numerous advertisements in the lay press, of guaranteed cures. They are all quack nostrums which will never cure tuberculosis. Only rest and sanatorium treatment consisting of good food, plenty of open air, sunshine, graduated exercises when indicated, adequate rest, and consequent freedom from worries and anxieties assisted by suitable medical or surgical therapy considered necessary by specially qualified competent doctors, will alone help you to get rid of the infection and become your old self again, and function as a father, husband, wage-earner and useful citizen.—JAI HIND.

Repentance absolves one from sins

"Whenever men with inward pain
And self-reproach their sins confess,
And steadfast never more transgress,
Their souls are cleansed from every stain;
As serpents shed their worn-out skins
These men are freed from cast-off sins.

(*Manu*, xi, 228; Mahabharatham, iii, Muir's translation quoted by *Democracy*, 11-3-51).

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YOU NEVER CAN TELL

(A Fascinating Real Health-Story with a Moral)

CONSTANCE J. FOSTER

When Dr. Thaddeus Marlin was a young medical student, he had pretty strong convictions on the stupidity of cluttering (clogging or choking) up the world with people who are hopelessly ill and handicapped. He was a strong advocate of euthanasia (method of making death painless). He used to argue about it with other students in his class.

"But that's what we are here for," they protested—"to take care of the lame, the halt (crippled) and the blind".

"Doctors are here to make sick people well," Marlin always countered, "and if nothing can make them well, they are better off dead".

On his hospital duty, one night in Marlin's senior year, he delivered a baby boy to a German immigrant woman in the slum section of the town. It was her tenth child and it was born with one leg a good deal shorter than the other. Force of habit made Doc blow into the baby's mouth to get him to breathe but after a moment he thought, "What the hell! All his life he will have to go around with that awful game (crippled) leg. The other kids will call him "*Limpy*". Why coax him to live? The world will never miss him".

But the doctor in him was strong and somehow he could not stop trying to make that small pair of lungs begin working, so he started again. Finally, there was the gasp he was waiting for, the rush of red to the baby's face, and then a feebly protesting wail.

Doc picked up his bag and left kicking himself all the way across town. "I don't know why I did it," he grumbled. "Too many children already in that poverty - stricken home! Why did I save this defective one? The world will be better off without such cripples".

The years went by. Doc moved to a small manufacturing city and built up a large practice there. His youthful radicalism was now gone and Doc was just another plodding always - tired physician, working like a dog to keep people alive, no matter how much better off they'd be dead. Old Hippocrates (the father of Medicine) had won.

Doc had his share of trouble. His only son and his son's wife were both killed in an automobile (motor car) accident, and Doc took their baby girl to look after. Doc adored her. The summer she was ten, Barbara woke one morning complaining of a stiff neck and funny pains in her arms and legs.

At first it was thought to be polio (a kind of paralysis) but it

turned out to be a rare virus disease that occurs so seldom that it is given only a brief reference in medical text-books. In all his long practice Dr. Marlin had never come across a single case of it. He called in neurologists (nerve-specialists) who shook their heads. They said there was no known cure for the disease which always progressed slowly to a greater or lesser degree of paralysis.

"There is a young doctor, however, who wrote an article recently about his success in handling some of these cases" one of the specialists told Doc. "The name is T. J. Miller, I would get in touch with him, if I were you."

Doc took Barbara to the small private hospital where Dr. Miller had instituted his new and revolutionary physical therapy techniques for victims of the various crippling diseases. Doc noticed that he walked with a decided limp.

"This game (crippled) leg makes me one of them," Dr. Miller said as he noticed Doc's glance. "I let the children call me "*Limpy*" and they love it. In fact, I like that better than my real name—Thaddeus—which always seemed to me rather stuffy (fussy). You see, like a lot of kids, I got named after an young medical student who brought me into the world".

Dr. Thaddeus Marlin swallowed hard. He remembered how, when he was an young medical student he had said to himself "The world will never miss him *(this very Dr. T. J. Miller)*. How blind he had been in those younger days!

He held out his hand to the doctor who was going to make Barbara walk again. "It's better to be crippled than blind" he said.—*(Readers' Digest,* June 1952).

Fifth World Health Assembly (WHO)

During the plenary sessions of the Fifth World Health Assembly of the WHO held in Geneva from the 5th to 22nd of May 1952 representatives of the various nations of the UNO, described the progress made in their respective countries in the matter of their health problems, rendered possible with the co-operation and help extended by the WHO, UNICEF and allied organizations. The outgoing President of the W. H. A., Dr. Scheele referred to the vast progress made during the year in different directions. Dr. Juan Salcedo Jr. the incoming President-elect of the W.H.A. spoke of the "widening pattern of inter-agency activities initiated or supported by the WHO which are mainly the outcome of a firm conviction that health work can be successful, *only* if integrated with the more general frame of social and economic development."

"Viewed in the light of this concept" said Dr. Salcedo, "WHO's technical assistance operations in 1953, as approved by the Fifth World Health Assembly, must be considered as one of the most important parts of the machinery which the United Nations have devised in order to help in creating a prosperous and peaceful world".—(*WHO News Letter,* V., 7, July 1952).

A Father's Prayer

General Douglas MacArthur

Prayers for Today!

BUILD me a son, O! Lord, who will be strong enough to know when he is weak and brave enough to face himself when he is afraid; one who will be proud and unbending in honest defeat and humble and gentle in victory.

Build me a son whose wishbone will not be where his back-bone should be; a son who will know THEE—and that to know himself is the foundation stone of knowledge.

Lead him I pray, not in the path of ease and comfort but under the stress and spur of difficulties and challenge. Here let him learn to stand up in the storm; here let him learn compassion for those who fail.

Build me a son whose heart will be clear, whose goal will be high; a son who will master himself before he seeks to master other men; one who will learn to laugh, yet never forget how to weep; one who will reach into the future, yet never forget the past.

And after all these things are his, add, I pray enough of a sense of humour, so that he may always be serious, yet never take himself too seriously. Give him humility, so that he may always remember the simplicity of true greatness, the open mind of true wisdom, the meekness of true strength.

Then I, his father, will dare to whisper "I have not lived in vain".–(The Young Soldier–quoted in *Readers' Digest*, June '52).

Duties of Youth and Age in the Matter of Healthy Living

THE duty of an young man is to show deference to his elders and to attach himself to the best and most approved of them, so as to receive the benefit of their counsel and influence. For the inexperience of youth requires the practical wisdom of age to strengthen and direct it. And this time of life—youth—is above all to be protected against sensuality and trained to toil and endurance of both mind and body, so as to be strong for active duty in military and civil service. And even when they wish to relax their minds and give themselves up to enjoyment, they should beware of excesses and bear in mind the rules of modesty. And this will be easier, if the young are not unwilling to have their elders join them even in their pleasures.

The old people on the other hand, should it seems, have their physical labours reduced; their mental activities should be actually increased. They should endeavour, too, by means of their counsel and practical wisdom to be of as much service as possible to their friends and to the young, and above all to the State. But there is nothing against which old age has to be more on its guard than against surrendering to feebleness and

idleness, while luxury, a vice in any time of life, is in old age especially scandalous. But if excess in sensual indulgence is added to luxurious living, it is a twofold evil; for old age not only disgraces itself; it also serves to make the excesses of the young more shameless.—(From Cicero on "*Duties*" quoted by *Democracy*).

The Onion on Trial

Four American doctors in Chicago have contended—and not without experimental evidence—that onions induce anæmia. Whether the onion should be looked upon as a flavouring addition to other foods or whether it is a positive food within its own right might perhaps be open to discussion, but we never expected it to be regarded as dangerous.

Dr. M. Kalser and a number of students of the University of Illinois ate over two pounds of cooked onions per day in addition to normal diet. After five days they felt tired, had pale finger nails, and blood counts showed a large drop in red cell count; indeed, after seven days, the count was down by a million and a half. They all recovered from the anæmia seven to ten days after stopping the onion addition to their diet.

Other experiments with dogs showed that a far more severe condition of anæmia was produced, with a loss of 50% of the red cells within fifteen days.

It should be pointed out that these experiments were carried out to measure the effects of excessive onion consumption. There is no suggestion by the doctors that a moderate and judicious use of onions, as condiments in the diet could be harmful.

The research was originally aimed at finding a cure or treatment for polycythæmia, an ailment caused by excessive red cell production in the blood. It may be that in the case of this malady, lots of onions may be curative rather than harmful agents.—(From *Food Manufacture*, Vol. xxvi, No. 12, 1951).

Long Life

How long can a germ cell stay alive? Botanists have been sceptical of the stories about plants grown from seeds that have been entombed for thousands of years; there has been no definite proof of seeds remaining viable for more than 150 years. But the new Carbon-14 dating method has just shown that seeds can live much longer than that. Last spring some ancient *lotus* seeds from a peat deposit in Manchuria were planted in a Greenhouse of the National Capital Parks in Washington D.C. The seeds were covered with shells so thick that they had to be filed off or removed by soaking for hours in concentrated sulphuric acid. Two of the seeds sprouted into lotus plants. Some of the seed samples were then sent to Willard Libby of the Chicago University for estimation of their age by measurement of their radioactive Carbon-14. Libby found that the seeds were atleast 800 years old!—(From *The Scientific American*, Vol. 185 : 5, Nov. 1951, p. 34).

Poor Baby, Rich Baby

Dr Douglas of the Oxford University recently carried out an investigation into the question of why infant mortality is highest in the low-income families. The Child Health Survey in this connection was based on a follow-up of 5,380 children—one out of four of all those born in Britain during a week in March 1946. The mortality for children of professional salaried men was only 23·7 per 1000 live births; for children of black-coated (*i.e.*, white collar) workers 30·5; for children of agricultural workers 41·6 and for children of urban manual workers 44·9. Thus the death rate for children of the urban manual workers was nearly double that for children of professionals.

Among all groups the greatest cause of death in the first month of life is premature birth. The rate of premature birth is 50 per cent higher in the families of wage earners than in those of professionals and salaried workers. Douglas suggests that this excess is due to child-bearing, closely spaced births, poor pre-natal care and excessive work (either inside or outside the home) during the later months of pregnancy.

From the second to the 12th month of life pneumonia and gastro-enteritis are the greatest killers—and the most class-conscious. Death from bronchitis and pneumonia in the first six months is four times as likely among the children of manual workers as among children of professionals. Crowded poorly ventilated homes and greater exposure to infection are partly responsible, Dr. Douglas believes.

After the first year, the class differences in mortality become much smaller. But Douglas concludes that "if all the social classes had had the same mortality rates as the well-to-do" the lives of about 10,000 infants would have been saved in Britain in 1946. —(*The Lancet*, London quoted in *Scientific American*, Nov. 1951).

Physiology of Emotions

When a person is excited, his pulse rate and blood pressure usually go up, his muscles are likely to get tense and he is likely to break out in a cold sweat. Subjectively we recognize various kinds of emotional excitement—fear, anger, disgust, hatred and so on. But does the physiological mechanisms make a distinction among them: does the body react differently, say to fear and anger? Psychologists have generally assumed that it does not. A recent controlled study shows, however, that fear and anger are not quite the same thing physiologically.

Dr. Albert F. Ax. of the University of Washington chose these two emotions for his study, "because they have been most often described as having identical physiological reactions and because they can both be stimulated in the laboratory without

too much difficulty." Thirty-two human subjects were thoroughly wired up to provide a continuous record of ten different physiological reactions. The stimulus used to produce fear was a slight electric shock, followed by an alarming statement by the experimenter that something had gone seriously wrong and the subject had very nearly been electrocuted. The stimulus to anger was rude, abusive and highly offensive behaviour of the experimenter's assistant. Dr. Ax found that:—*Fear* produced more sweating, a higher pulse rate, and a greater rise in blood pressure during the *contracting* part of the heart-beat. *Anger* produced more of a drop in palm temperature and a greater rise in blood pressure during the *expanding* phase of the heart-beat. These differences in reaction patterns, says Dr. Ax, closely resemble differences in the effects of injecting two forms of adrenalin. The fear reaction is similar to that produced by epinephrine, anger to that produced by nor-epinephrine.—(From the *Scientific American*, Nov. 1951).

Sleeping Draughts

WHILE hypnotics are of great value as short term palliatives in sleeplessness and for tiding a patient over a temporary emergency, for chronic insomnia they are unsatisfactory, dangerous, and, in the long run, almost useless. They are unsatisfactory because they all have unpleasant side effects; they are dangerous for the reasons mentioned below; and they are ultimately almost valueless, because the dose has to be increased to produce sleep, and, in the end it does not even do this except at the price of mental depression and ill-health.

Only two types of hypnotics are in common use in Britain today; barbiturates and bromides. Barbiturates are addicting drugs and their continued daily use is liable to lead to speech impairment, ataxia, paralyses and mental disturbance. Withdrawal after addiction to an increased dosage causes convulsions and delirium. Treatment with bromides, when they are given for long periods in sufficient dosage, requires very careful control, for bromide intoxication, producing an initial slowing of movements and psychic processes with drowsiness, causes restlessness and irritability which are likely to create the mistaken impression that the dosage should be increased. Later, sleeplessness, excitement, delirium, delusions and hallucinations may occur. While bromides may be comparatively well tolerated in patients under the age of 50, above that age a considerable lower blood concentration may induce severe poisoning.

Other choices open to the doctor are chloral hydrate, paraldehyde, sulphonal and a few other rarely used drugs. The continued use of chloral hydrate leads to fatty degeneration of the liver, heart and other organs. Paraldehyde is occasionally habit-forming inspite of its unpleasant taste and smell. Moreover it causes gastric upsets

and mental excitement. Sulphonal is excreted very slowly so that its regular use leads to accumulation in the tissues.

In spite of the harmfulness of hypnotics they are very widely used. With sedatives they form the largest single group of all drugs prescribed comprising 15% of the total, of which barbiturates account for 9·4% and bromides 5·8%. Altogether, 672,000 lbs. of barbiturates were produced in the U.S.A. in 1948. This works out at 24 pills a year for every citizen in the country (*Lancet*, 1952).

What can be done to reduce this dangerous or unnecessary and wasteful indulgence in sleeping draughts and tablets ? Firstly, it is the function of the doctor to find out the cause of the insomnia, which in probably over 50% is worry. The patient must be told, or told how to find out, what is worrying him—this alone will cure a large number—and then discover a way of tackling it (short of swallowing an addicting drug or a useless placebo). Secondly the patient must be taught to relax. Muscular relaxation is almost as good as sleep, and, if carried out correctly, will often enable the patient to go rapidly to sleep. The value of relaxation was appreciated probably before history books were written, for primitive people are better able to relax than we. It is easy to carry out for any one sufficiently determined to conquer insomnia—it only requires sympathetic guidance and the time and practice which any patient with insomnia should be well prepared to give.—*Medical World*, May 2, 1952.

Reactions from Worry

"GASTRIC ULCERS don't come from what people eat but from what eats them" writes Dr. D. Ewen Cameron, Director of the Allan Memorial Institute of Psychiatry, Montreal, in a recent issue of the *Canadian Medical Association Journal.* He begins by stating that anxiety is normal and that it is a total reaction, involving not simply the feeling but also changes at the physiological, biochemical and (if long continued) the structural levels. Chronic indulgence in the emotion may produce not only loss of weight but occasionally quite excessive obesity ; it may cause severe exhaustion, plays an important part in ulcer formation and is a factor in many skin conditions.

One attribute of anxiety is generalization. As an example of this he quotes the case of a little girl who underwent a rough and forceful examination of her tonsils and adenoids. She is now not only afraid of her own doctor, but of all doctors, of certain symbols of medicine, such as a doctor's office, the odour of disinfectants and the presence of a uniformed nurse.

Physicians are familiar with another type—the woman who is fearful about many things. She fidgets if her children are not at home by four o'clock, and her fidgets grow by leaps and bounds

to unceasing apprehension as the hours slip by. Every pain and minor complaint serves to spark the near certainty of cancer or coronary disease. She cannot stand crowds, cannot travel in buses, she sleeps poorly, her appetite is capricious, she has pains at the back of her neck, headaches, tremor, fast pulse and exaggerated tendon reflexes. And there are men like that, too. Psychotherapy and physiotherapy have been found to be effective remedies —(*Good Health*, U.S.A., April 1952).

LONDON CONFERENCE OF 8th JULY, 1952

Discusses World Problem of T.B.

Dr. Benjamin Outlines India's Problem

AMONG the papers presented at the opening session of the Third Commonwealth Health and Tuberculosis Conference held in London on July 8 was one on "Tuberculosis in India" by Dr. P. V. Benjamin (Adviser in Tuberculosis, Directorate-General of Health Services, Government of India).

Dr. Benjamin gave an outline of the tuberculosis problem in India and the means being employed, or proposed to be employed in the near future, for its control. During the last few years, he said, a clearer picture of the problem in India had been emerging. This was largely a result of the tuberculin testing connected with the B C.G. campaign, and also of a limited number of mass miniature X-ray surveys in various parts of the country. Reports had shown that tuberculous infection was widespread, and no part of the country had been shown to be free, or even relatively free. Institutions for the diagnosis, treatment and isolation of tuberculous patients were still very few, there being only 118 clinics and 11,294 beds in the whole of India in sanatoria and hospitals. Some progress had been made in the last five years, approximately 4,000 beds having been added. Finances for dealing with the tuberculosis problem were completely inadequate.

Referring to plans for tuberculosis control in India, Dr. Benjamin said that while India had taken note of what had been, and was being, done in other countries, it was also realised that with the limited resources available an anti-T.B. programme on an extensive scale as in Great Britain or Canada was impossible. Even if the money were available, such a campaign would not be possible because of the general socio-economic conditions in India.

A scheme capable of being introduced in India within a few years, had been drawn up by the Planning Commission, and emphasis was laid on measures considered immediately possible, especially those pertaining to the prevention of tuberculosis. BCG vaccination was given top priority, for two main reasons: preventive

measures were cheaper and more effective in the long run than curative measures; and it was a method which could be cheaply and quickly applied. It was introduced into India in 1948 and extended on a large scale in 1951. Up to the end of April 1952 (this year) 7,883.000 persons had been tested and 2,488,000 vaccinated.

India's plans included the provision of more clinics, hospitals and training centres. Although after-care colonies and rehabilitation centres could not be developed on a large scale at present, it was suggested that attempts be made to stimulate voluntary organisations to set up, with state aid, such colonies or work-centres in association with tuberculosis institutions. Dr. Benjamin said there was wide scope for them to supplement the efforts of the Government. Their main function would be that of educating the public and the administrators on the seriousness and urgency of the tuberculosis problem. Such a problem is not confined to India only; most of the countries in the South-East Asia region are in the same, or in an even worse, predicament than India. While the Governments and tuberculosis workers in these countries are doing all they can with their limited resources, attempts are being made to deal with it as a world problem by international bodies like the World Health Organisation (WHO), the United Nations International Children's Emergency Fund (UNICEF) and the International Union Against Tuberculosis, as well as this present conference.

Dr. Benjamin, hoped that by such concerted efforts, the apparently impossible task of controlling tuberculosis in all the countries of the world may be achieved earlier than would be possible by isolated efforts.—(*B. I.S., Bulletin, dated* 10–7–'52).

Important Facts to Know about Leprosy

"*The Star*", a magazine edited and published by the U S.A., National Leprosarium at Carville stresses the following facts:—1. "Science records 145 experiments in which research workers have tried to infect themselves or other volunteers with leprosy by injecting *Bacillus leprae* into their bodies; there has not been a single infection in these attempts. (2) In 264 years of helping leprosy suffers, "no physician, nurse or attendant of the San Lazaro Hospital in Manilla, of the Philippine Islands has ever contracted the disease", says Dr. M. Carron of that hospital. (3) In the 55 years of Carville's history, only one employee developed leprosy. He was found to have been exposed to the infection while he was a child and he came from an endemic area in one of the only 3 States of the U S A. where leprosy now occurs endemically *viz*, Louisiana, Texas and Florida. The childhood history is the important point. Unless a person has been exposed to leprosy as a child, it is 99 9 per cent scientific certainty that he will not contract the disease later, whatever he may do".—(From *Herald of Health*, Feb. 1952).

He who overcomes others is strong—he who overcomes himself is far more powerful.
—*Chinese Maxim.*

THE ACUTE APPENDIX

The Surgeon's Dilemma—With Apologies to Shakespeare

J. D. KANAKARAJ, M B., B S.

Prologue.—The appendix is a vestigeal organ situated at the bulge of the cæcum and is very often the seat of mischief It can, at times, get grossly inflamed and even threaten the life of the patient. The relatives crowd round him in a state of anxious agitation, the patient himself is in acute distress and the surgeon presides over this scene with Death lurking in the shadows When such a case is seen within twenty four hours of the onset of pain, all surgeons are unanimous in their decision to operate *immediately*: but when the case comes late or when the attack is mild, the question whether to operate immediately or defer or dispense with operation, arises and is often a baffling problem in surgery It is true that with the remarkable advances in modern surgery, appendix removal no longer evokes either terror in the patient or diffidence in the surgeon; but the vexatious character of the problem remains unchanged. When to operate and if not now, how long to wait, would depend on surgical instinct born out of experience and sound judgement. The correct decision may be a bit of a problem to those who are young and inexperienced and also to those who cannot take quick decisions. A parody is here attempted on the lines of Hamlet's famous soliloquy, to portray a surgeon's mental condition as he debates within himself whether to operate or not. No offence or sarcasm is meant either to the Bard of Statford-on-Avon or to lovers of Shakespeare.

The Surgeon—

" To cut, or not to cut: that is the question:
Whether 'tis saner in the mind
To wait and see and watch
Or to take courage and say the word,
And by operation end it all ? To
Prepare: to put under:
No more: and by a cut, to say we end
The belly-ache and a thousand natural ills
The flesh is heir to, 'tis a consummation
Devoutly to be wished. To cut, to retract:
To sever: perchance to break the
Natural adhesions: Ay, there's the rub:
For in the wake of that what agonies may come
When we have excised this atavistic coil
Must give us pause: there's the respect
That makes mortality of one more case.
For who would bear the pricks and stings of remorse,
Grave disappointment, colleagues' contumely
When he himself might his quietus make
By waiting for a few hours: Or would you,
Rather hear him groan and scream
And have him arranged in cubitus of Fowler:
Prevail with fomentations and fluids,
Half-yearly pulse and blood count,
Penicillin and anxious prayers.
Or have recourse to the knife ?
Thus nature doth make cowards of us all;
And thus the native hue of resolution
Is sicklied o'er with the pale hue of diffidence,
And an enterprise of great pitch and moment
With this regard their chances turn awry
And lose the name of action."

Betel Nut Chewer's Cancer†

Ralph W. Mendelson, Colonel, U S. A. F. R. (MC)

CANCER of the oral tissues is a not uncommon condition in people who chew betel nut. The existence of these cancers and their associated cause have been known for many years. The custom of chewing betel nut prevails throughout the tropical Far East and is much more pernicious than the chewing of tobacco. The "cud" is made of betel nut with a small amount of slaked lime wrapped in the leaf of the betel plam. It is very pungent, astringent, and slightly stimulating mixture. According to Webster's Unabridged Dictionary, the nut proper contains, beside tannin, the following alkaloids, all of which are pyridine derivatives : (1) arecoline, the menthyl ester of arecaidine, a poisonous liquid to which medicinal properties have been ascribed ; (2) arecaidine * a nontoxic crystalline acid ; (3) arecolidine, a crystalline iscomer of arecoline ; (4) arecaine * a crystalline methyl derivative of guvacine ; (5) guvacine, a crystalline substance ; and (6) guvacoline, the crystallizable methyl ester of guvacine.

Continued use of the "cud" results in retraction of the gums, severe pyorrhœa and loosening of the teeth which become stained an ebony black. The mechanical irritation from the protruding teeth and the chemical effect of the betel nut mixture seem to be the determining factors in the production of a malignant neoplasm of the oral tissues. Primarily the growths are papillomatous in character later becoming malignant. Although one of the alkaloids, arecoline, is supposed to possess antimycotic properties, many betel nut users suffer from a mycotic infection of the lips. A fungus may be obtained from the cud that is identical with that found in the lesions. Furthermore, treatment of the skin lesions is of no avail unless the patient ceases to chew betel nut.

I seldom saw a patient in the early stage of his disease and, unfortunately, most of them had been treated by native healers with a variety of irritating applications Those with papillomatous growths only were successfully treated but were reluctant to accept the chewing of betel nut as the cause of their disease. Betel nut cancer is a striking example of a malignancy caused by self-inflicted and preventable irritation which is difficult to control because of the nature of the habit underlying the cause.

Editor's note : Davis ‡ reported on betel nut cheek cancer as observed at the Philippine General Hospital, Manila. In 49 patients with cheek cancer he found that 81 percent chewed betel nut. The site of the growth corresponded to the position in which the cud was held. Spittel, Davidson, and Turner ¶ have shown that cancer of the cheek is the most common malignant growth in Ceylon. They believed it to be due to the irritation caused by betel chewing. Bentall ¶ stated that cheek cancer is common in Travancore, South India, where betel nut chewing is widely practised, and that out of 1,700 patients with this form of cancer, 70 percent chewed betel nut.—*U.S A.A F. Med. Jour.—Indion Dental Review*, June 1952.

†From a study made in Siam when the author was Medical Adviser to the Royal Siamese Government.

* Editor's note : According to the United States Dispensatory, 24th edition, arecaidine and arecaine have been shown to be identical.

‡ Davis G. G. : Buyo cheek cancer with special reference to etiology, J. A. M. A, 64: 711-718, Feb 27, 1915

¶ Cited by Manson-Bahr, Sir P H., in Manson's Tropical Diseases, 13th edition. The Williams & Wilkins Co., Baltimore, Md., 1950, chap. 2, p. 33.

An American on G B.S.

In 1933, following a visit by Bernard Shaw to the U S A., a letter was printed in the London press from a New York resident who said :—"I refer to your editorial, offering us G B. S. in settlement of the war debt. Please consider our counter offer If you will retain Mr Bernard Shaw, we will cancel the debt As a matter of fact, if you had kept him during the past month (when he was in U. S. A.) we should be in your debt."—(From *Democracy* of 29th Oct. 1950).

Book of Rules of Games and Sports–

By HARRY CROWE BUCK revised and brought up-to-date by the Staff of the Y. M. C. A. College of Physical Education, Saidapet, Madras-15. 13th Edition, 358 pages, 1952-'53 Published by the Y.M.C.A. Publishing House, No. 5, Russel Street, Calcutta. Price: Rs. 3-8-0.

Harry Crowe Buck, founder Principal of the Y. M. C. A College of Physical Education is an unforgettable name to sports lovers in this province. The College of Physical Education was founded by him and its present high standard of efficiency is due entirely to his untiring efforts. The fact that this book of rules for games and sports is being revised and brought up-to date year after year by the Principal and students of the Y M C. A. College of Physical Education is itself proof of the regard and esteem in which the late Mr. Buck's memory is held.

The book under review is complete in every respect. All games from the purely Indian games like Atya Patya, Kho-Kho, Hu-Tu Tu etc to the wholly Western games like Cricket, Soft Ball, Lawn Tennis have been dealt with in great detail and the rules of each game have been clearly laid out. Where the games involve the use of playing fields, diagrammatic representations of such fields with their dimensions, as approved by the International Athletic Association have been given. Track and field sports have been treated in a separate chapter in which the rules have been set forth very clearly. The book concludes with an enumeration of the athletic records of both Indian and World athletes and with the scoring table for Pentathlon and Decathlon events.

The book is printed in clear bold type and makes very easy reading. It should be extremely useful not only to students of physical education but also to all sports-fans.

U. V. R.

NEWS AND NOTES

New Advance in Brain Surgery

Four British medical specialists have introduced a surgical operation which is considered to mark a new advance in brain surgery. It is a limited operation which is considered to avoid damage to personality which is sometimes caused by the standard method of performing frontal leucotomy.

This new type of brain surgery has been performed on 29 patients during the past four years. A patient who was troubled with great anxiety and depression was able to lead a happy and normal married life after the operation.

Local anæsthetic was used when performing this operation on a male patient. The surgeons report that while part of his brain was being removed he talked freely, answered questions intelligently, carried out calculations, used his limbs and was not aware of any change in his physical or emotional state.—(*B I.S.*, March 1952).

* * *

Cortisone at reduced price

A unique new fermentation process for producing cortisone has been discovered by a team of chemical researchers at The Upjohn Company, Kalamazoo, Mich , U. S. A. Cortisone has been found of great value in the treatment of rheumatoid arthritis, rheumatic fever, burns, eye ailments and other conditions.

The new production process ends dependence on a very complex and costly chemical series of procedures for making cortisone.

The new process has enabled the price of cortisone to be cut down by 20 per cent initially. A group of cheap and readily available raw materials, such as soya beans, yeast and a mexican yam derivative, will be used to make cortisone.

If you should hold yourself up to your children as an object lesson, hold yourself up as a warning and not as an example.— *G. B Shaw.*

Medical and Health Topics from Periodicals

Needs of India today.—I believe in a dynamic liberal movement that rejects reactionaries of either left or right, that is dedicated to land reforms, minimum wages, *higher living standards,* broader social security, *more adequate public health,* and greater opportunities for all people regardless of their race, creed or caste or colour. That is the kind of political movement in which most Americans also deeply believe — (*Chester Bowles* in interview to *Blitz,* 19-7-'52).

●

Ignorance of sanitary law —"My lord," said the counsel in an intricate sanitary case, "I assume that your Lordship is fully acquainted with the statutes and authorities !"

"Assume nothing of the kind if you please" was the startling reply made by Lord Morris a great Irish Judge, "I yield to no man in my ignorance of sanitary law" —(*Democracy,* '51.)

●

Education begins at home —Educating the child is a process that has to start from the moment it is born. Just sending the child to school does not get it all the education it needs. School is life and the education that a child gets at home is an inseparable part of that life. The interests of the child will be best served when its home and school lives are co-operatively planned and worked out in practice. Health education, social welfare and recreation are the responsibilities of parents who wish to see their children grow up into useful citizens. —(*American Reporter*)

●

Affection as medicine.—Attention, love and affection have been found to be of medical value to young children who are patients in hospitals over a long period An account of such an experiment was given by the superintendent of the National Jewish Hospital for Tuberculosis in Denver. The subjects were victims of tubercular meningitis, their ages ranging from five months to three years. Medical care has been spectacularly successful, the death rate having been cut down from nearly one hundred per cent to about forty-five, But the little patients suffered emotional upsets under the hospital regimen. So it was decided to reproduce for them as closely as possible, the surroundings which children have at home. A young woman was employed to take the place of mother and to give them the affectionate attention which they needed Playing with toys was made vivid and efforts were made to arouse childish interest in various occupations. At the end of three months the results were described as dramatic The little ones were radiant. The plan is to be extended to other young patients in the hospital.—(*Good Health,* U.S.A.. April 1952)

●

Providence guides the affairs of men.—There is a serene providence that rules the fate of nations, that takes little account of time, little of one generation or race, makes no account of disasters, conquers alike by what is called defeat or by what is called victory, thrusts aside enemy and obstruction, crushes everything immoral as absolutely inhuman and secures ultimate triumph for the best race by the sacrifice of everything which resists the moral laws of the world".—(*Emerson* in his address on *Abraham Lincoln*).

●

Company makes the man —Avvai, the great Tamil poetess said, "good people go with the good, even as the swan's nature leads it to the lake where the lotus flower is in bloom ; and the wicked people seek the company of the evil, just as the vulture, smelling the corpse flies to its horrible food".

●

Who is a great surgeon ?—A great surgeon is one who has three gifts :—The eye of an eagle, the heart of a lion and the hand of a woman

●

The needs of a well-regulated State.—The State needs more skilled workers than learned men and a well-regulated State needs more teachers of the mechanical arts than masters of the liberal arts to teach letters.—(*Cardinal Richelieu* of France in 1656).

* * *

"God enters into every life by a private door" —*Emerson.*

* * *

"It is the taught already, that profit by teaching".—*Browning.*

* * *

"A communist is a capitalist without cash in his pockets" —(*Fulton Sheen*—quoted by *Democracy*)

* * *

The real measure of our wealth is how much we should be worth if we lost our money — (*J. H. Jowett*)

* * *

You can easily determine the calibre of a man by ascertaining the amount of opposition it takes to discourage him —(*R D.N*)

* * *

"Communism is related to Western materialism as putrefaction is to disease .. .Communism from the economic point of view is rotted capitalism".—(*Fulton Sheen* quoted by *Democracy*).

* * *

"The man of high or humble birth
Whose life with virtue's laws accords,
The righteous, modest man, is worth
A hundred merely high-born lords".

—(*Muir's Mahabaratha :* verse 1492).

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